

**REMARKS**

In the October 19, 2004 Office Action, the Examiner:

- Rejected claims 1, 2, 5-7 and 13 under 35 U.S.C. 103(a) as unpatentable over Jolly et al. (“*Jolly*”, U.S. Pat. No. 5,947,238) in view of Gordaninejad et al. (“*Gordaninejad*”, U.S. Pat. No. 6,471,018);
- Rejected claim 9 under 35 U.S.C. 103(a) as unpatentable over *Jolly* as modified as applied to claim 6, and further in view of Lin et al. (“*Lin*”, U.S. Pat. No. 5,120,030);
- Rejected claims 10-12 under 35 U.S.C. 103(a) as unpatentable over *Jolly* as modified ‘018, as applied to claim 1, and further in view of Knapp (“*Knapp*”, U.S. Pat. No. 5,301,974);
- Rejected claims 1, 5-7 and 13 under 35 U.S.C. 103(a) as unpatentable over *Gordaninejad*;
- Rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over ‘018 as applied to claim 1, and further in view of Lisenker (“*Lisenker*”, U.S. Pat. No. 6,336,535);
- Rejected claims 10-12 under 35 U.S.C. 103(a) as being unpatentable over ‘018 as applied to claim 1, and further in view of *Knapp*; and
- Allowed claim 8 over the prior art of record.

***Claim Rejections - 35 U.S.C. § 103***

The Examiner has rejected claims 1, 2, 5-7 and 13 under 35 U.S.C. 103(a) as unpatentable over *Jolly* in view of *Gordaninejad*; rejected claim 9 as unpatentable over *Jolly* as modified as applied to claim 6, and further in view of *Lin*; rejected claims 10-12 as unpatentable over *Jolly* as modified ‘018, as applied to claim 1, and further in view of *Knapp*; rejected claims 1, 5-7 and 13 as unpatentable over *Gordaninejad*; rejected claim 4 as unpatentable over ‘018 as applied to claim 1, and further in view of *Lisenker*; and rejected claims 10-12 as being unpatentable over ‘018 as applied to claim 1, and further in view of *Knapp*.

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations.<sup>1</sup>

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<sup>1</sup> *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The rejected claims include claims 1, 2, 4-7 and 9-13. Of these rejected claims, claims 1 and 13 are independent claims. Applicants have amended claims 1 and 13 to clarify the invention over the prior art of record.

Independent claim 1 has been amended to clarify that each of the unit magnets is substantially ring-shaped and configured such that an imaginary line connecting a north pole to a south pole is arranged substantially perpendicular to a direction of motion of the piston. Similarly, independent claim 13 has been amended to clarify that an imaginary line connecting a north pole to a south pole of the magnetic field generating unit is arranged substantially perpendicular to a direction of motion of the piston. The orientation of the north to south pole axis can clearly seen in Figure 2 of the present application.<sup>2</sup> When the piston of the present invention moves upward and downward, the magnetic flux incident on the metallic coating of the external surface of the piston changes, creating eddy currents and heat in the metallic coating, and thereby reducing the translational speed of the piston.<sup>3</sup>

Contrary to the present invention as now claimed, Jolly discloses placing magnets with their north-south axes aligned parallel to the direction of motion, as is evident from all of the Figures in Jolly including Figures 4a and 6a. Such an arrangement is only effective if the magnets generate forces in a Magnetorheological (MR) fluid. As the present invention does not make use of a MR fluid, the orientation of the unit magnets is important to reduce translational speed.

Moreover, none of the remainder of the references, including *Gordaninejad, Lin, Knapp* or *Lisenker* disclose, teach or suggest substantially ring-shaped unit magnets that are configured with their north to south pole axes arranged substantially perpendicular to a direction of motion of the piston. As described above, such an orientation is important to reduce translational speed where no MR fluid is present.

In light of the above, it is respectfully submitted that independent claims 1 and 13 of the present invention cannot be unpatentable over the cited references, as the prior art reference (or references when combined) do not teach or suggest all the claim limitations. Accordingly, claims 1, 2, 5-7 and 13 cannot be unpatentable over *Jolly* in view of *Gordaninejad*; claim 9 cannot be unpatentable over *Jolly* as modified as applied to claim 6, and further in view of *Lin*; claims 10-12 cannot be unpatentable over *Jolly* as modified '018,

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<sup>2</sup> Also see paragraph [008] and [0028].

<sup>3</sup> For an explanation, see paragraphs [0043] to [0077].

as applied to claim 1, and further in view of Knapp; claims 1, 5-7 and 13 cannot be unpatentable over *Gordaninejad*; claim 4 cannot be unpatentable over '018 as applied to claim 1, and further in view of *Lisenker*; and claims 10-12 cannot be unpatentable over '018 as applied to claim 1, and further in view of *Knapp*, as the prior art references do not teach or suggest all of the claim limitations.

### ***CONCLUSION***

In view of the foregoing, it is respectfully submitted that the application is now in a condition for allowance. However, should the Examiner believe that the claims are not in condition for allowance, the Applicant requests that the Examiner call the undersigned attorney at 650-493-7519 to set up an interview to deal with any remaining issues.

If there are any fees or credits due in connection with the filing of this Amendment, including any fees required for an Extension of Time under 37 C.F.R. Section 1.136, authorization is given to charge any necessary fees to our Deposit Account No. 50-0310 (order No. 060944-0164-US). A copy of this sheet is enclosed for such purpose.

Respectfully submitted,

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